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(54) Abstract Title
System and method for private messaging commentary

(57) The present invention relates to private messaging commentary. According to an embodiment of the present invention, a sender can send a message to an approving party for approval. The sender may select various options 400 for sending the message. Examples of options include automatically sending the message to the intended recipients if the message is approved; accepting changes and automatically sending the message to the intended recipients after changes have been made by the approving party, sending the changed message back to the sender if the message has been changed by the approving party; setting a timer and sending the message back to the sender if the timer expires; and sending the message to the intended recipients if the timer expires.

_400_

Please select any of the following that apply:

☑ If approved, send to intended recipient(s)

☑ If changes, accept and send to intended recipient(s)

☐ If changes, accept and send back to me

☐ If timer expires, send back to me

☑ If timer expires, send to intended recipient(s)

☐ No timer, allow approving party unlimited time
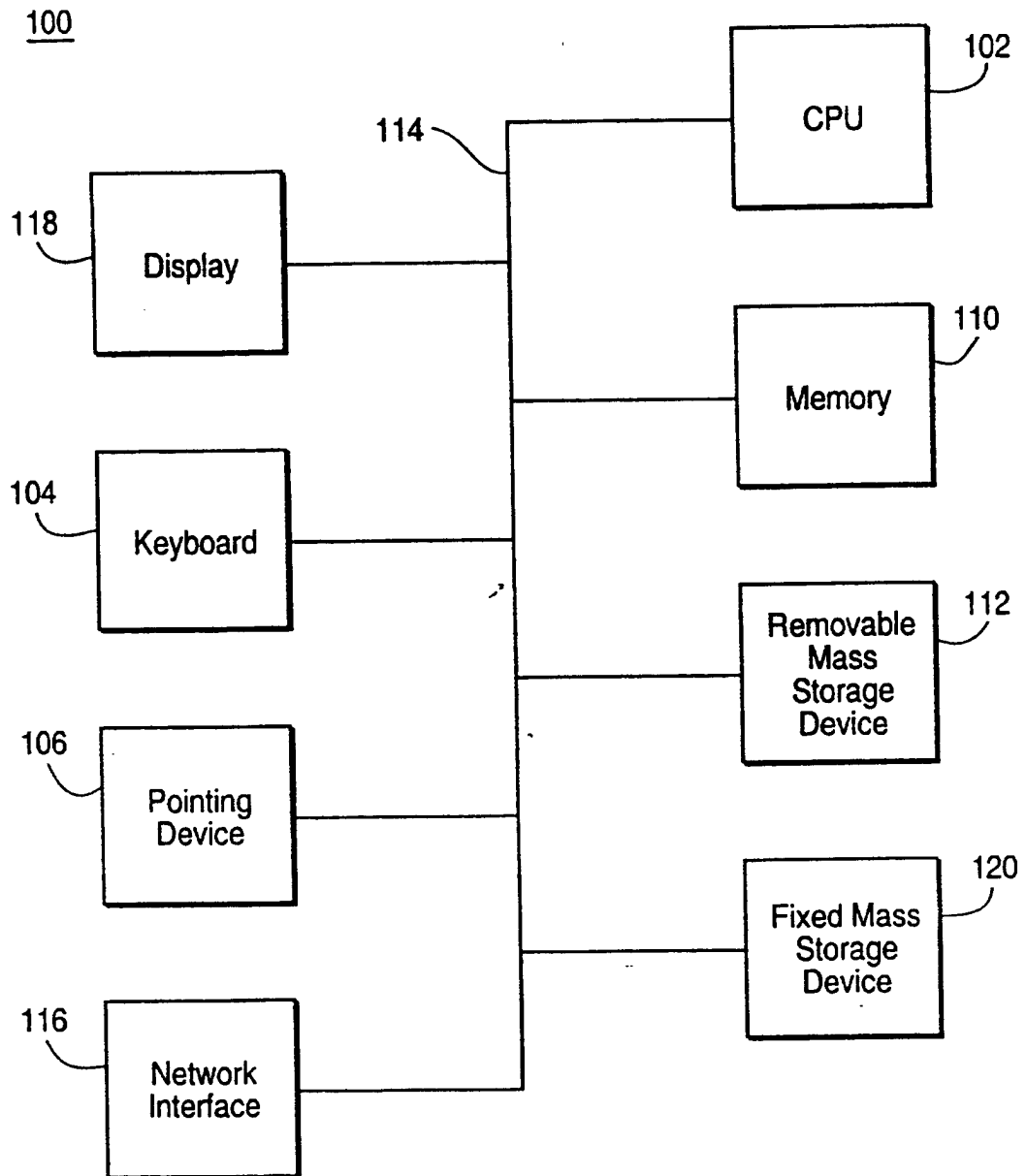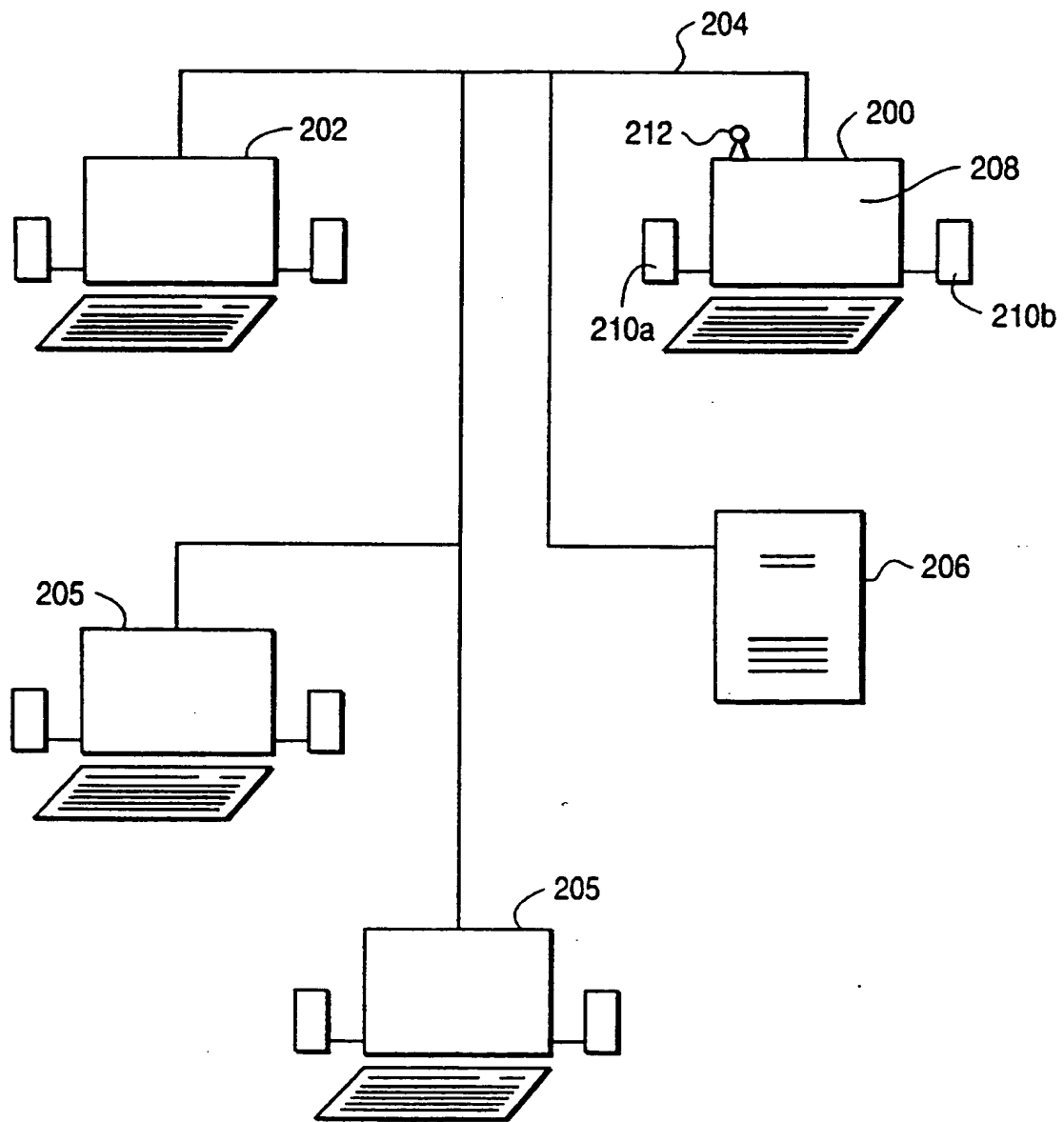
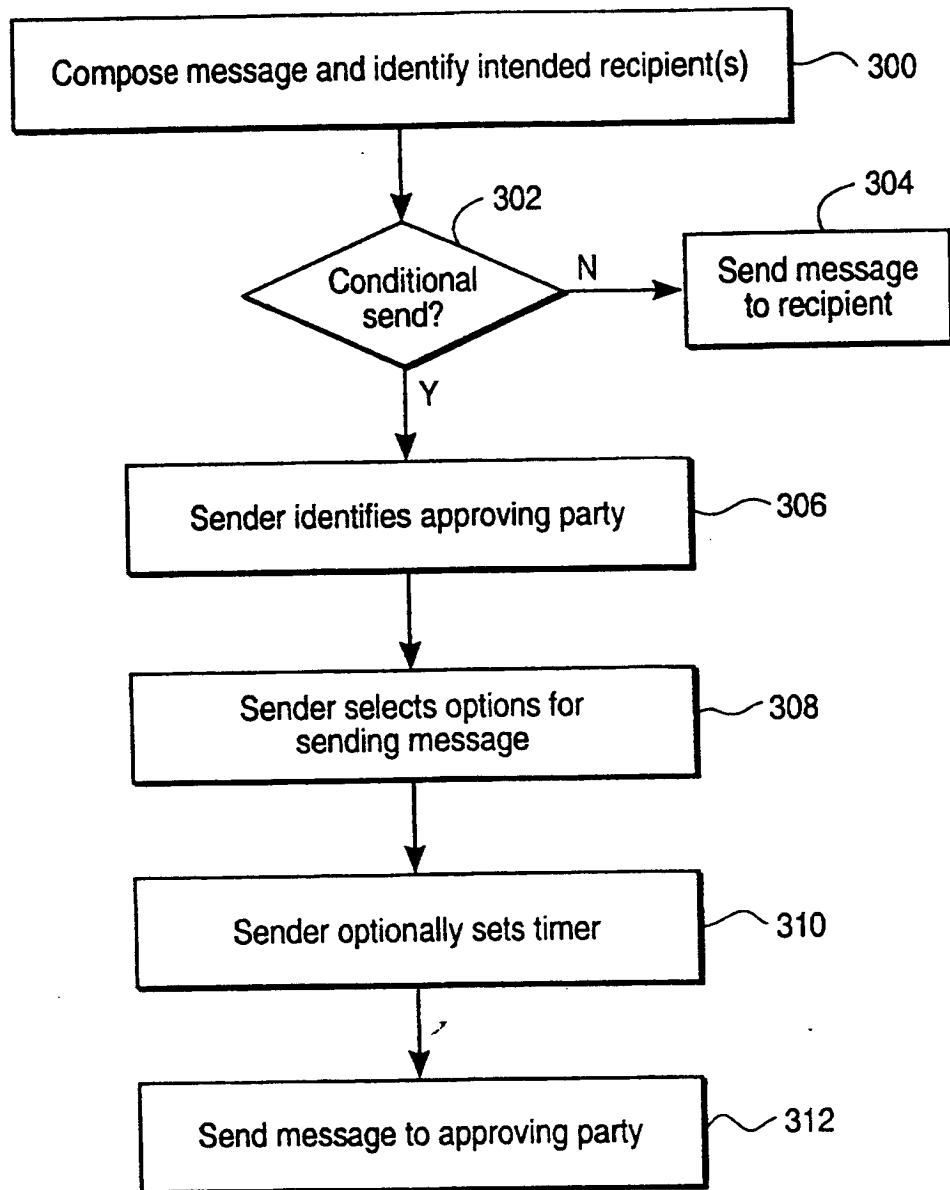FIG. 4

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FIG. 1

FIG. 2

FIG. 3

400

Please select any of the following that apply:

- ☑ If approved, send to intended recipient(s)
- ☑ If changes, accept and send to intended recipient(s)
- ☐ If changes, accept and send back to me
- ☐ If timer expires, send back to me
- ☑ If timer expires, send to intended recipient(s)
- ☐ No timer, allow approving party unlimited time

FIG. 4

Approving party receives message — 500

502 Timer expired? — Y → Send message back to sender w/notification that timer expired, or to recipients, depending on option selection — 504

N

506 Message approved? — Y

N

508 Make changes? — N → Approving party enters comments if any — 510 → Send message and comments back to sender — 512

Y

514 To be sent to intended recipient? — N → Send message back to sender — 516

Y

Send message to intended recipient — 518

Send notification to sender — 520
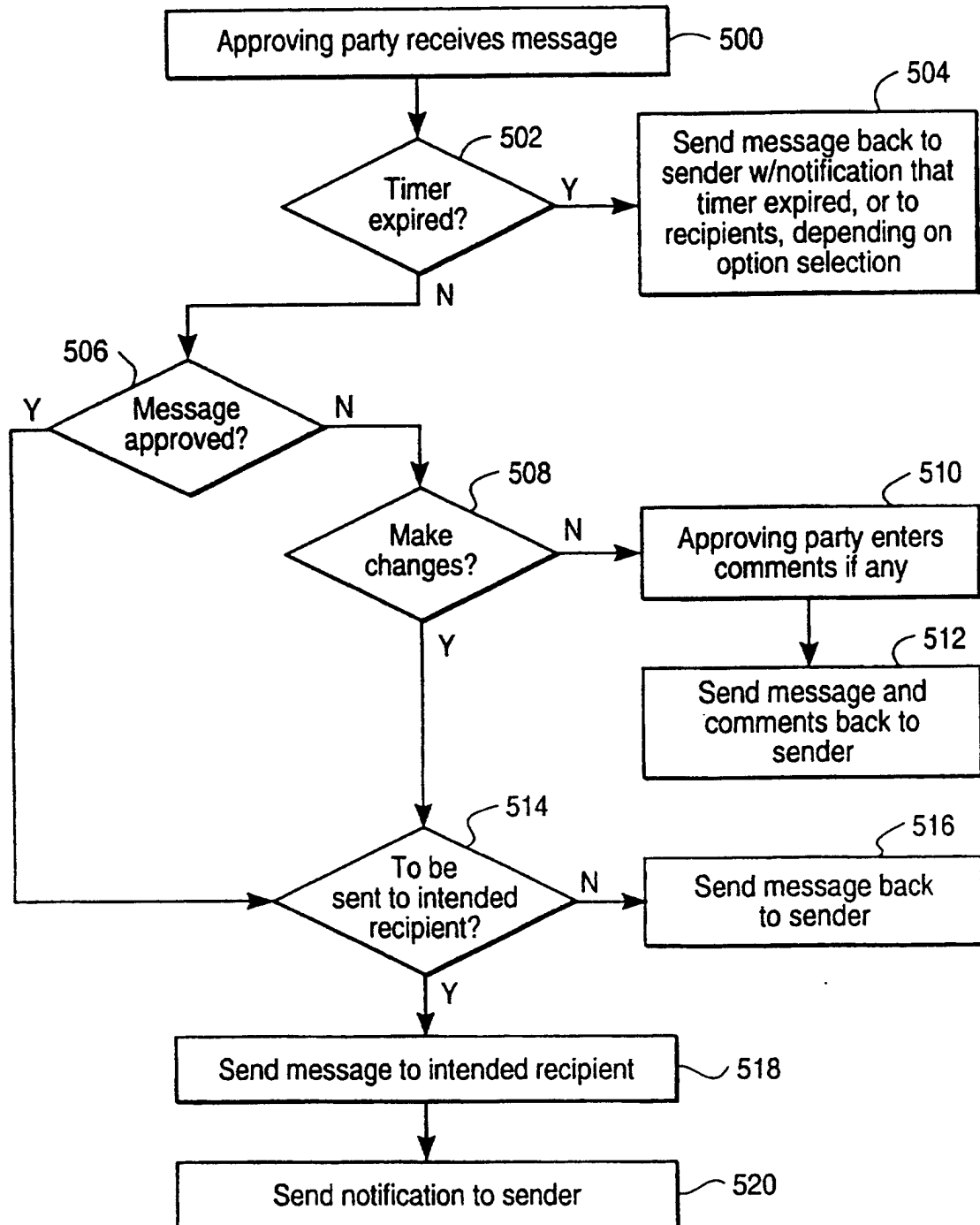
FIG. 5

600 602

To: All Employees

From: V.P.

Re: Vacation Policy

The following is our vacation policy:

Please select one of the following:

☑   Message approved

☐   Make changes to message and send to intended recipients

☐   Make comments and send back to sender

FIG. 6

SYSTEM AND METHOD FOR PRIVATE MESSAGING COMMENTARY

The present invention relates to electronic messaging systems. In particular, the present invention relates to obtaining electronic message commentary.

Examples of electronic messaging systems include electronic mail (e-mail), voice mail, and multimedia message systems. E-mail systems, such as those manufactured by Microsoft or Lotus, and voice mail systems, such as those manufactured by Octel, Siemens or Lucent, are widely used. Multimedia message systems are also gaining in popularity. A multimedia message is typically a message that includes more than one media. For example, a multimedia message may include text, video, audio, and images, such as graphs and charts. In a multimedia messaging system, the ability to exchange e-mails, voice mails, faxes, images and video is typically all part of a basic multimedia system. Examples of multimedia messaging systems include ViewMail, Phone Max, Repartee, and View Call Plus, all by Active Voice.

The creator of an electronic message may often wish to obtain approval by another person prior to sending electronic message to its intended recipient(s). For example, a manager of a division in a company may create a memo that he wishes to circulate to the employees in his division. However, prior to circulating this memo, he may wish to obtain approval from his boss, or

another department such as the legal department, prior to sending this message out to all of the recipients. Typically, the sender would send the message to the party whose approval is required. The approving party would review the electronic message and send another electronic message back to the sender with his comments or approval. Due to the busy schedules of the approving party, it may often be the case that the approving party does not respond in any way to the sender of the message. Even if the approving party would approve of the message, the approving party initially may not want to interrupt his day to spend time creating a reply to the sender, and then later forget to reply at all. Alternatively, the approving party may be out of the office for an extended period of time. During this time, the sender of the message may eventually forget that he sent the message to be approved and not remember to send the message to the intended recipients. Accordingly, information may be bottlenecked at the approval stage, and perhaps delayed for a substantial period of time.

It would be desirable for an electronic messaging system to facilitate easy and efficient message approval prior to sending the message out to the intended recipients. The present invention addresses such a need.

The invention is defined in the independent claims, to which reference should now be made. Further advantageous features are detailed in the dependent claims.

The present invention relates to private messaging commentary. According to an embodiment of the present invention, a sender can send a message to an approving party for approval. The sender may select various

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options for sending the message. Examples of options include automatically sending the message to the intended recipients if the message is approved; accepting changes and automatically sending the message to the intended recipients after changes have been made by the approving party; sending the changed message back to the sender if the message has been changed by the approving party; setting a timer and sending the message back to the sender if the timer expires; and sending the message to the intended recipients if the timer expires. Some of these options may be combined.

A method according to an embodiment of the preset invention for sending an electronic message is presented. The method includes identifying a first party and identifying a second party. The method also includes selecting an option for sending a message to the second party, wherein the message is to be sent to the second party after the message is sent to the first party. The message is then sent to the first party for approval. The sender may select one or more options and/or the approving party may select one or more options for approving and/or sending the message on.

The message may be sent to the second party after a triggering event or combination of triggering events: the triggering event may be determined by action or inaction of the second party.

Thus, according to an embodiment of a method (following the method for sending an electronic message), the present invention provides a method for providing approval for an electronic message. The method includes determining if a message is approved. The method also determining if changes are to be made to the message, resulting in a changed message. The message is then sent to a first party if the message is approved. The changed message is then sent to a second party if the message is approved. The first and second party may both be intended recipients; alternatively the second party may be the sender.

A system according to an embodiment of the present invention for sending an electronic message is also provided. The system includes a

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processor configured to accept identification of a first party and a second party. The processor is also configured to provide an option for sending a message to the second party, wherein the message is to be sent to the second party after the message is sent to the first party; and sending the message to the first party. The system also includes a memory coupled with the processor, wherein the memory is configured to provide instructions to the processor.

For a better understanding of the invention embodiments of it will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a block diagram of a computer system suitable for implementing an embodiment of the present invention.

Figure 2 is a block diagram of a network system suitable for implementing an embodiment of the present invention.

Figure 3 is a flow diagram of a method according to an embodiment of the present invention for sending a message for private commentary.

Figure 4 is an example of a display screen that may be viewed by the sender of a message.

Figure 5 is a flow diagram of a method according to an embodiment of the present invention for responding to a message.

Figure 6 is an example of a display that may be viewed by the receiver of the message.

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Figure 1 is a block diagram of a general purpose computer system 100 suitable for carrying out the processing in accordance with one embodiment of the present invention. Figure 1 illustrates one embodiment of a general purpose computer system. Other computer system architectures and configurations can be used for carrying out the processing of the present invention. Computer system 100, made up of various subsystems described below, includes at least one microprocessor subsystem (also referred to as a central processing unit, or CPU) 102. That is, CPU 102 can be implemented by a single-chip processor or by multiple processors. CPU 102 is a general purpose digital processor which controls the operation of the computer system 100. Using instructions retrieved from memory 110, the CPU 102 controls the reception and manipulation of input data, and the output and display of data on output devices.

CPU 102 is coupled bi-directionally with memory 110 which can include a first primary storage, typically a random access memory (RAM), and a second primary storage area, typically a read-only memory (ROM). As is well known in the art, primary storage can be used as a general storage area and as as scratch-pad memory, and can also be used to store input data and processed data. It can also store programming instructions and data, in the form of data objects and text objects, in addition to other data and instructions for processes operating on CPU 102. Also as well known in the art, primary storage typically includes basic operating instructions, program code, data and objects used by the CPU 102 to perform its functions. Primary storage devices 110 may include

any suitable computer-readable storage media, described below, depending on whether, for example, data access needs to be bi-directional or uni-directional. CPU 102 can also directly and very rapidly retrieve and store frequently needed data in a cache memory (not shown).

A removable mass storage device 112 provides additional data storage capacity for the computer system 100, and is coupled either bi-directionally or uni-directionally to CPU 102. For example, a specific removable mass storage device commonly known as a CD-ROM typically passes data uni-directionally to the CPU 102, whereas a floppy disk can pass data bi-directionally to the CPU 102. Storage 112 may also include computer-readable media such as magnetic tape, flash memory, signals embodied on a carrier wave, PC-CARDS, portable mass storage devices, holographic storage devices, and other storage devices. A fixed mass storage 120 can also provide additional data storage capacity. The most common example of mass storage 120 is a hard disk drive. Mass storage 112, 120 generally store additional programming instructions, data, and the like that typically are not in active use by the CPU 102. It will be appreciated that the information retained within mass storage 112, 120 may be incorporated, if needed, in standard fashion as part of primary storage 110 (e.g. RAM) as virtual memory.

In addition to providing CPU 102 access to storage subsystems, bus 114 can be used to provide access other subsystems and devices as well. In the described embodiment, these can include a display monitor 118, a network

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interface 116, a keyboard 104, and a pointing device 106, as well as an auxiliary

input/output device interface, a sound card, speakers, and other subsystems as

needed. The pointing device 106 may be a mouse, stylus, track ball, or tablet,

and is useful for interacting with a graphical user interface.

The network interface 116 allows CPU 102 to be coupled to another

computer, computer network, or telecommunications network using a network

connection as shown. Through the network interface 116, it is contemplated that

the CPU 102 might receive information, e.g., data objects or program

instructions, from another network, or might output information to another

network in the course of performing the above-described method steps.

Information, often represented as a sequence of instructions to be executed on a

CPU, may be received from and outputted to another network, for example, in

the form of a computer data signal embodied in a carrier wave. An interface

card or similar device and appropriate software implemented by CPU 102 can be

used to connect the computer system 100 to an external network and transfer

data according to standard protocols. That is, method embodiments of the

present invention may execute solely upon CPU 102, or may be performed

across a network such as the Internet, intranet networks, or local area networks,

in conjunction with a remote CPU that shares a portion of the processing.

Additional mass storage devices (not shown) may also be connected to CPU

102 through network interface 116.

An auxiliary I/O device interface (not shown) can be used in conjunction

with computer system 100. The auxiliary I/O device interface can include general and customized interfaces that allow the CPU 102 to send and, more typically, receive data from other devices such as microphones, touch-sensitive displays, transducer card readers, tape readers, voice or handwriting recognizers, biometrics readers, cameras, portable mass storage devices, and other computers.

In addition, embodiments of the present invention further relate to computer storage products with a computer readable medium that contain program code for performing various computer-implemented operations. The computer-readable medium is any data storage device that can store data which can thereafter be read by a computer system. The media and program code may be those specially designed and constructed for the purposes of the present invention, or they may be of the kind well known to those of ordinary skill in the computer software arts. Examples of computer-readable media include, but are not limited to, all the media mentioned above: magnetic media such as hard disks, floppy disks, and magnetic tape; optical media such as CD-ROM disks; magneto-optical media such as floptical disks; and specially configured hardware devices such as application-specific integrated circuits (ASICs), programmable logic devices (PLDs), and ROM and RAM devices. The computer-readable medium can also be distributed as a data signal embodied in a carrier wave over a network of coupled computer systems so that the computer-readable code is stored and executed in a distributed fashion.

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Examples of program code include both machine code, as produced, for example, by a compiler, or files containing higher level code that may be executed using an interpreter.

The computer system shown in Figure 1 is but an example of a computer system suitable for use with the invention. Other computer systems suitable for use with the invention may include additional or fewer subsystems. In addition, bus 114 is illustrative of any interconnection scheme serving to link the subsystems. Other computer architectures having different configurations of subsystems may also be utilized.

Figure 2 is a block diagram of an example of a network system suitable for implementing an embodiment of the present invention. Figure 2 is shown to include at least a sending computer 200 and a receiving computer 202 networked together. The software for the messaging system of the present invention may be server-based and/or client-based. Sending computer 200 and receiving computer 202 are networked together via network 204, which can also include other computers 205 and/or a server(s) 206 as shown. Examples of the network 204 include a cable network, a local area network (LAN), a wireless network, the Internet, and an Intranet. Of course, in other embodiments, sending computer 200 and receiving computer 202 may be connected point-to-point. Similar to other computers in the network 204, sending computer 200 is shown to include a display 208, a set of speakers 210a-210b, a camera 212, and other

equipment such as a mouse (not shown). Sending computer 200 may send a message to the receiving computer 202.

Figure 3 is a flow diagram of a method for sending a message for private commentary, according to an embodiment of the present invention. An electronic message is composed by a sender and intended recipients are identified (step 300). Examples of an electronic message may include an e-mail, voice mail, and a multimedia message. It is then determined whether this message is to be sent in a conditional manner (step 302). Rather than selecting a send option, the sender may select a conditional send option to indicate that a private commentary is desired prior to sending the message out to the intended recipients. If the message is not being sent in a conditional manner, then the message is sent to the intended recipients (step 304).

If, however, the message is to be sent in a conditional manner, then the sender identifies an approving party (step 306). Examples of approving parties include an employer, a marketing department, a legal department, or someone in the accounting department. The sender may then select options for sending the message (step 308). Further details of options that maybe selected are later discussed in conjunction with Figure 4. Optionally, the sender may set a timer that defines a period of time for the message to wait for a response by the approving party before the message is returned to the sender (step 310). The sender then sends the message to the selected approving party (312).

Figure 4 is an example of a display of options for the sender. Depending

on the type of electronic message that is being sent, the options may be presented in various ways, such as visual, audio, or multimedia. In this example, the display 400 prompts the sender to select from a variety of options. For example, the sender could elect to send the message directly to the intended recipients if the approving party approves of the message. If the approving party elects to make changes to the message, the sender can elect to accept the changes and send the message directly to the intended recipients or send the message back to the sender. The sender can also elect to set a timer such that when the timer expires, the message is either sent back to the sender or sent directly to the intended recipients. The timer may particularly be useful for situations when the approving party is either away from the office for an extended period of time or too busy to respond. Alternatively, the sender may select to allow the approving party unlimited time to respond.

Figure 5 is a flow diagram of a method according to an embodiment of the present invention for providing private commentary. The selected approving party receives the message (step 500). If a timer has been set, it is determined whether the timer has expired (step 502). Once the timer expires, the message is sent to whoever the sender elected to send the message after the timer expired (step 504). For instance, the message may be sent back to the sender with a notification that the timer expired. An example of another option is to send the message directly to the intended recipients after the timer expires.

If the timer has not expired, it is determined whether the approving party

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has approved the message (step 506). If the approving party approves the message, then it is determined whether the message is to be sent to the intended recipient (step 514). This determination is made depending on which options were selected by the sender. If the message is not to be sent to the intended recipients, then the message is sent back to the sender (step 516). If, however, the message is to be sent to the intended recipient, then the message is sent to the intended recipient with a notification of the action to the sender (steps 518 and 520).

There are several options for the header information of the message that is sent to the intended recipient. The header may identify only the intended recipient and the original sender. Alternatively, the header may identify the intended recipient as well as the approving party and original sender. If the approving party is identified, the approving party may simply be identified as having received a copy of the message, or the message may indicate that it has been approved by the approving party. Rather than identifying the approving party in the header of the message, this information may also be added automatically to the body of the message. A default setting may be used to determine what information is given to the intended recipient regarding the approving party. Alternatively, the information given to the intended recipient regarding the approving party may be another option presented to the user.

If the approving party does not approve of the message in step 506, then it is determined whether the approving party wishes to make changes to the

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message (step 508). If no changes are to be made but the approving party does not approve of the message, then the approving party may enter comments (step 510). The message and comments are then sent back to the sender (step 512).

If changes are to be made (step 508), then it is determined whether to send the message to the intended recipient after accepting the changes (step 514). This decision whether to send the message to the intended recipient after changes have been made is predetermined by the sender when the sender selects options for the message. If the message is not to be sent to the intended recipients, the changed message is then sent back to the sender (step 516). If, however, the changed message is to be sent to the intended recipients (step 514), then the changed message is sent to the intended recipients and notification of the action is sent to the sender (steps 518 and 520).

Figure 6 is an example of a display shown to the approving party according to an embodiment of the present invention. The information presented to the approving party may be in various formats, depending on the message, such as visual, audio, or multimedia, and the sender's selected options. In the example shown in Figure 6, the display 600 is shown to include the message 602 along with text prompting the approving party to select options. Examples of options that may be offered to the approving party include approval of the message, making changes to the message, and making comments. The recipient(s) of the changed message or the commented message may be stated in the options offered to the approving party so that the approving party

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understands who will view the changes or comments. For example, an option to make changes may specifically state that the changed message will be sent to the intended recipients rather than back to the original sender. For example, one option may state, "make changes and send the changed message to the intended recipients"; or "make comments and send back to sender". These options may be shown to the approving party in various ways. For example, in a visual message, the options may be selected through a drop down menu, radial buttons, a dialog box, a tool bar, or through icons.

A system and methods for private messaging commentary have been disclosed. Software written according to the present invention may be stored in some form of computer-readable medium, such as memory or CD-ROM, or transmitted over a network, and executed by a processor. Software written according to the present invention may be stored in either a client location or a server location. For example, a server may keep track of the status of the timer and the status of the message.

Although the present invention has been described in accordance with the embodiment shown, one of ordinary skill in the art will readily recognize that there could be variations to the embodiment and these variations would be within the   scope of the present invention. Accordingly, many modifications may be made by one of ordinary skill in the art without departing from the   scope of the appended claims.

CLAIMS:

1.   A method for sending an electronic message, comprising:

identifying a first party (306);

identifying a second party (300, 308, 400);

selecting one or more options for sending a message to the second party, wherein the message is to be sent to the second party after the message is sent to the first party (308, 400); and

sending the message to the first party (312).

2.   The method according to claim 1, wherein the message is to be sent to the second party after a triggering event occurs (400).

3.   The method according to claim 2, wherein a triggering event is an approval of the message by the first party (400).

4.   The method according to claim 2 or 3, wherein a triggering event is accepting changes to the message (400).

5.   The method according to any of claims 2 to 4, wherein a triggering event is an expiration of a predetermined time period (400).

6.   The method according to any of the preceding claims, wherein the second party is a sender of the message (400).

7.   The method according to any of claims 1 to 5, wherein the second party is an intended recipient of the message (400).

8.   The method according to any of claims 1 to 7, wherein an option is to send the message to an intended recipient if the message is approved by the first party (400).

9. The method according to any of claims 1 to 5 or 7, wherein an option is to accept changes to the message made by the first party, resulting in a changed message, and send the changed message to an intended

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recipient (400).

10. The method according to any of claims 1 to 6, wherein an option is to accept changes to the message made by the first party, resulting in a changed message, and send the changed message to a sender of the message (400).

11. The method according to any of claims 1 to 6, wherein an option is to send the message back from the first party to a sender when a predetermined time period has expired (400).

12. The method according to any of claims 1 to 5 or 7, wherein an option is to send the message from the first party to an intended recipient when a predetermined time period has expired (400).

13. A method for providing approval for an electronic message, comprising:

determining if a message is approved (506),

determining if changes are to be made to the message, resulting in a changed message (508);

sending the message to a first party if the message is approved (514, 516, 518); and

sending the changed message to a second party if the message is approved (514, 516, 518).

14. The method according to claim 13, wherein the first party and second party are predetermined by a sender of the message (400).

15. A system for sending an electronic message, comprising: a processor (102) configured to accept identification of a first party and a second party, the processor also being configured to provide one or more options for sending a message to the second party, wherein the message is to be sent to the second party after the message is sent to the first party; and to send the message to the first party; and

a memory (110, 112, 120) coupled with the processor (102), the memory being configured to provide instructions to the processor.

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16. The system according to claim 15, wherein the message is to be sent to the second party after a triggering event occurs (400).

17. The system according to claim 16, wherein a triggering event is an approval of the message by the first party (400).

18. The system according to claim 16 or 17, wherein a triggering event is accepting changes to the message (400).

19. The system according to any of claims 16 to 18, wherein a triggering event is an expiration of a predetermined time period (400).

20. A system and/or a method substantially according to one of the embodiments described in the description and shown in the Figures.

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Application No:	GB 0002756.5	**Examiner:** Tony Reevell
Claims searched:	1 - 20	**Date of search:** 28 September 2000

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

    UK Cl (Ed.R): G4A (FGX, UXX); H4P (PQA, PQN, PPEC, PPS)

    Int Cl (Ed.7): G06F17/60; H04L12/58

Other: Online: EPODOC; WPI; PAJ

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	US 5850219 (KUMOMURA) - see whole document	1,13,15 at least

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X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

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